From: Linda Phillips
To: John Schaum
Subject: Re: Review of PCB Exposure Estimation Tool -- Review requested from NCEA Exposure Team
Date: 09/18/2009 10:40 AM

Thanks John - This is a great suggestion. I'll wait to hear back from Jeff on whether or not he wants me to add this.

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▼ John Schaum---09/18/2009 09:42:04 AM---Jeff - The spreadsheet looks fantastic, well organized and great documentation. The one thing I wou

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To: Jeff Frithsen/DC/USEPA/US@EPA
Cc: Amina Wilkins/DC/USEPA/US@EPA, David Cleverly/DC/USEPA/US@EPA, Jacqueline Moya/DC/USEPA/US@EPA, Laurie Schuda/DC/USEPA/US@EPA, Linda Phillips/DC/USEPA/US@EPA, Matthew Lorber/DC/USEPA/US@EPA
Date: 09/18/2009 09:42 AM
Subject: Re: Review of PCB Exposure Estimation Tool -- Review requested from NCEA Exposure Team

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> Jeff - The spreadsheet looks fantastic, well organized and great documentation. The one thing I would recommend is to add some information addressing Mark Madaloni's issue. In the background tab could add this:
>
> This spreadsheet estimates indoor dust exposures by making an assumption of the amount of dust adhered to skin and multiplying by the PCB concentration in the dust. Users may not always have estimates of this dust concentration value because it was not calculated by the the surface wipe sampling procedure, rather the procedure only measured the PCB mass load per unit area. In these cases, users can convert this load to a concentration using this equation:
>
> PCB concentration in dust (mg/g) = PCB surface load (mg/cm2) / total dust surface load (g/cm2)
>
> Dust loads on residential floors have been measured in the range of : 0.005 to 0.7 mg/cm2. The geometric mean of this range (0.06

mg/cm2) can be used as a first approximation, but ideally users would collect samples at the building of interest to confirm this value. Surface dust loads can be easily measured using wiping or vacuuming techniques and conducting a gravimetric analysis. If surfaces appear clean it is important to sample sufficient area to avoid detection limit problems (i.e. over 1 m2).

Jeff, this will only partially satisfy Mark because what he really wanted was an alternative exposure estimation procedure that starts with PCB surface load and uses transfer factors and contact frequency to estimate skin load. This is doable but would complicate the spreadsheet and in my opinion is a less accurate method.

John